

**PATENT APPLICATION
DOCKET NO. 10008209-1**

**IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S): Shell S. Simpson, et al. **GROUP ART UNIT:** 2144
SERIAL NO.: 09/874,427 **EXAMINER:** Greg C. Bengzon
FILED: 6/4/2001
SUBJECT: DYNAMIC PRODUCTION DEVICE REPRESENTATION
IN A DISTRIBUTED ENVIRONMENT

APPELLANTS'/APPLICANTS' REPLY BRIEF

REPLY TO EXAMINER'S ANSWER

The Examiner rejected Claims 1-8, 11, 15-22, 24-27, 29-34, and 36-37 under §102 as being anticipated by USPN 5,974,234 issued to Levine . The Examiner rejected Claims 14, 23, 28, and 35 under §103 as being unpatentable over Levine in view of Goodman.

Grounds for Rejection A: In the opening brief, the Applicant argued, with respect to Claims 1-7, 16-21, 36, and 37, that Levine failed to teach or suggest a method that includes providing the interface for a selected one of the production devices to a client upon receipt from the client of a production request for the target document where that interface includes user accessible controls for selecting production options for a target document.

Answering the opening brief, the Examiner, on page 14, asserts that, with respect to Claim 1, Levine col. 14, lines 25-35 teaches “providing the interface for a selected one of the production devices to a client upon receipt from the client of a production request for the target document.” The passage cited by the Examiner, reproduced below, mentions no such thing.

By contrast, in the preferred approach of FIG. 6B, the application receives a request from a client and translates that request into a function call with an argument. In practice, as will appear from the discussion below, the information call permits the routing interface 206 to communicate to the communications interface, in a shorthand manner, what information the client desires. More particularly, the substance of the function and its argument is made available to an appropriate module in the communications interface and that module decides which values are to be provided to or which actions are to be taken with respect to a particular device. As should be appreciated, this greatly reduces the amount of commands to be provided by the application layer.

Levine, col. 14, lines 25-38.

It is noted that the interface referred to in the claims is an interface that has user accessible controls. The cited passage merely discusses receiving a request from a client and translating that request into a function call. The passage mentions nothing of providing a user interface for a selected production device let alone an interface that has user accessible controls of any kind.

Addressing the Applicants arguments in the opening brief, the Examiner makes the following statement on page 20 of the answer:

The Applicant presents the following argument(s) *[in italics]*:

Levine mentions nothing of providing a web-page [interface] upon receipt of a production request for a target document where that interface includes user accessible controls to selection production options for the target document. (Page 9)

The Examiner respectfully disagrees with the Applicant. The Applicant seems to emphasize that in the claimed invention, the interface is only provided after receiving the production request. The Examiner notes that in Column 4 Lines 15-20 Levine disclosed that the information displayed to the client includes dynamic information computed at the time that a client makes a request to the server. Thus where Levine requests a [printer] operation, said operation including a plurality of electronic pages (Column 7 Lines 45-50) and a set of processing instructions, wherein Levine further seeks to ascertain the settings of the target document processing device, (Column 5 Lines 5-10) Levine disclosed of *'providing an interface upon receiving the production request for a target document.*

To aid in explaining the Examiner's misunderstanding, each of the passages referenced by the Examiner is reproduced and addressed below.

On the increasingly popular world-wide-web (www), hypertext markup language (html) specifies the display of information on a "client" computer, and hypertext transfer protocol (http) provides a neutral mechanism for the transfer of information from a "server" computer to a "client" computer over the TCP/IP network protocol. Of particular interest is the neutral aspect, in which the transfer and display of information does not depend on the client computers operating system or processor configuration, but only on the capabilities of a protocol-compliant "browser". Such software is widely available for most computers at this time. Information transferred and displayed to the client includes both static information defined in advance and dynamic information computed at the time that a client makes a request to the server. Publicly available server software often includes the common gateway interface (CGI) which allows the server to invoke a software program which may be passed user specified parameters, and whose output will be transferred to, and displayed on the client computer.

Levine, col. 4, lines 1-20. This passage simply discusses that web pages can be static or dynamic.

In one example, the network 78 includes a client, such as a workstation 82 with an emitter or driver 84. In operation, a user may generate a job including a plurality of electronic pages and a set of processing instructions. In turn, the job is converted, with the emitter, into a representation written in a page description language, such as PostScript. The job is then transmitted to the controller 44 where it is interpreted with a decomposer, such as one provided by Adobe Corporation. Some of the principles underlying the concept of interpreting a PDL job are provided in U.S. Pat. No. 5,493,634 to Bonk et al. and U.S. Pat. No. 5,226,112 to Mensing et al., the disclosures of both references being incorporated herein by reference. Further details regarding a technique for generating a job in a PDL may be obtained by reference to the following text, the pertinent portions of which are incorporated herein by reference:

Levine, col. 7, lines 45-60. This passage simply describes the use of a driver to generate a print job.

In one prior art scheme, a request for an operation is received from the client, via the application layer, and a set of parameters corresponding with the request is created by the application layer. In one instance, the request may seek to ascertain the values associated with selected machine settings of the target document processing device. Accordingly, the requested settings are communicated to the connectivity layer and it, in turn, obtains the values designated by the application layer.

Levine, col. 5, lines 3-11. This passage discusses an application layer creates a set of parameters in response to a request such as a request to ascertain values associated with a selected machine.

These passages mention nothing of providing the interface for a selected one of the production devices to a client upon receipt from the client of a production request for the target document where that interface includes user accessible controls for selecting production options for a target document.

Grounds for Rejection B: In the opening brief, the Applicant argued, with respect to Claims 7, that Levine failed to teach or suggest a method that includes generating, using production logic for each detected device, an interface having user accessible controls for selecting production options for and directing production of a document on that detected production device.

In the answer, the Examiner continues to erroneously assert that this act is taught by Levine, col. 14, lines 25-35 and col. 15, lines 45-65. The recited act states that an interface is generated using production logic for a detected device. The generate interface has user accessible controls for selecting production options for that detected device. The passages cited by the Examiner mention nothing of the use of production logic let alone the use of production logic to generate an interface that has user accessible controls.

In an attempt to address the Applicants' argument, the Examiner makes the following statement on page 22 of the answer:

The Applicant presents the following argument(s) *[in italics]*:

Levine does not teach an interface generator where that interface includes user accessible controls to selection production options for the target document.

The Examiner respectfully disagrees with the Applicant. Levine disclosed an HTTP Proxy Server and Applications Layer, further including a routing interface (Column 10 Lines 60-65) in order to generate a client interface to allow users to makes changes in site settable values in a particular device.

The Applicant did NOT argue that “*Levine does not teach an interface generator where that interface includes user accessible controls to selection production options for the target document.*” The Applicant argues that Levine does not teach or suggest a method that includes generating, **using production logic for each detected device**, an interface having user accessible controls for selecting production options for and directing production of a document on that detected production device. Consequently, the Examiner's reply, in this respect, is irrelevant.

Grounds for Rejection C: In the opening brief, the Applicant argues, with respect to Claims 8, 11, 14, and 15, that Levine fails to teach or suggest a proxy service returning an interface having user accessible controls for identifying a target document and for selecting production options for the target document.

In the answer, the Examiner erroneously assert that this act is taught by Levine, col. 14, lines 25-35 and col. 15, lines 45-65. These passages mention nothing of a

proxy service. They mention nothing of an interface having user accessible controls for identifying a target document or for selecting production options.

In an attempt to address the Applicants' argument, the Examiner makes the following statement on page 22 of the answer:

The Applicant presents the following argument(s) *[in italics]*:

Levine does not teach a proxy service that is operable, in response to receiving a production request, to return a client interface where that interface includes user accessible controls to selection production options for the target document.

The Examiner respectfully disagrees with the Applicant. Levine disclosed an HTTP Server (Column 8 Lines 45-50) and Applications Layer, further including a routing interface (Column 10 Lines 60-65) in order to generate a client interface to allow users to makes changes in site settable values in a particular device.

The first passage, column 8, lines 45-45, simply discusses that an HTTP server processes queries from a client directed to a printer. The second passage, column 10, lines 60-65 discusses routing interface that provides a programmatic "application programmable interface." The Application programmable interface does NOT allow for user input and thus does not include user accessible controls for anything.

Grounds for Rejection D: In the opening brief, the Applicant argues, with respect to Claims 22-27, that Levine fails to teach or suggest an interface generator operable to access production logic for a production device in the database and, following receipt of a production request for a target document, to serve an interface for the production device, the interface, being generated according to the accessed production logic, having user accessible controls for selecting production options for the target document.

In the answer, the Examiner erroneously assert that this act is taught by Levine, col. 8, lines 45-65; col. 12, lines 15-35, col. 7, lines 45-50, and col. 15, lines 45-65. These passages mention nothing of an interface having user accessible controls for identifying a target document or for selecting production options let alone accessing production logic in a database and generating an interface according to that production logic.

Grounds for Rejection E: In the opening brief, the Applicant argues, with respect to Claims 29-34, that Levine fails to teach or suggest a proxy service that is operable to return, in response to receiving a production request, to the client an interface for selecting production options for the selected production device and to manage the production of the target document for the selected production device using production options selected through the interface.

In the answer, the Examiner erroneously assert that this act is taught by Levine, col. 4, lines 55-65; col. 7, lines 45-50, col. 14, lines 25-35, and col. 15, lines 45-65. These passages mention nothing of a proxy service, let alone, a proxy service that is operable, in response to receiving a production request, to return to a client an interface for selecting production options for a selected production device for the selected production device.

Grounds for Rejection F: In the opening brief, the Applicant argues, with respect to Claims 28 and 35, that Levine and Goodman fail to teach or suggest an interface generator operable to access the production logic for a production device in the database and serve an interface for the production device, the interface being generated to include user accessible controls for selecting production options for a document as specified by the production logic for that production device.

Goodman mentions nothing of an interface generator. The Applicant maintains, as above, that Levine mentions noting of the use of production logic let alone the use of production logic to generate an interface that has user accessible controls.

CONCLUSION

The Applicants respectfully maintain the position that Claims 1-8, 11, and 14-37 are patentable over the cited references and are in condition for allowance.

Respectfully submitted,
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APPENDIX OF CLAIMS INVOLVED IN THE APPEAL

1. (previously presented) A method for representing production devices on a network, the method comprising:

hosting an interface for one or more production devices, each interface having user accessible controls for selecting production options for a target document;

providing the interface for a selected one of the production devices to a client upon receipt from the client of a production request for the target document; and

managing the production of the target document for the selected production device using production options selected through the interface.

2. (original) The method of Claim 1, further comprising detecting new production devices connected to the network, and hosting an interface for each new production device.

3. (previously presented) The method of Claim 2, further comprising:

acquiring production logic for each detected production device, the production logic including data for generating a user interface having particular controls for selecting production options for that detected production device;

using the production logic for each detected device, generating an interface having user accessible controls for selecting production options for and directing production of a document on that detected production device; and

associating the generated interface with a network address.

4. (original) The method of Claim 3, wherein the act of acquiring comprises identifying the new device and acquiring production logic for the identified device from a device information service.

5. (original) The method of Claim 1, wherein each interface is a web page associated with a network address, the act of hosting comprises hosting each interface on a web server, and the act of providing comprises providing the interface to a web browser.

6. (original) The method of Claim 1, wherein the interface is hosted and production of the document is managed on a device other than the production device.

7. (previously presented) A method for representing production devices on a network, the method comprising:

- detecting new production devices connected to the network;
- using production logic for each detected device, generating an interface having user accessible controls for selecting production options for and directing production of a document on that detected production device;
- hosting the generated interface for each production device;
- providing the interface for a particular production device to a client upon receipt from the client of a production request for a target document; and
- managing the production of the target document for the particular production device using production options selected through the interface.

8. (previously presented) A method for managing electronic document production over a computer network, the method comprising:

- a proxy service receiving a production request;
- the proxy service, returning an interface having user accessible controls for identifying a target document and for selecting production options for the target document;
- the proxy service receiving identification of a target document and production options selected through the user interface; and
- the proxy service managing production of the identified target document for the production device using production options selected through the interface.

9. (cancelled).

10. (cancelled)

11. (original) The method of Claim 8, wherein the proxy service includes a web server and the interface is a web page; and the act of returning includes returning the web page.

12. (cancelled)

13. (cancelled)

14. (original) The method of Claim 8, wherein the act of managing includes merging the document with the selected production options into a production plan and delivering the production plan in a device-understood format to the production device.

15. (original) The method of Claim 8, wherein the proxy service operates on a device other than the production device.

16. (previously presented) A computer program product for managing electronic document production over a computer network, the product comprising a computer useable medium having computer readable instructions thereon for:

receiving, from a client, a production request for a production device for a target document;

in response to the production request, returning to the client an interface for the production device, the interface having user accessible controls for selecting production options for the target document;

managing the production of the target document using production options selected through the interface.

17. (original) The product of Claim 16, further comprising instructions for acquiring a target document and wherein the instructions for returning and managing comprise instructions for returning an interface for selecting production options for the target document and managing production of the target document.

18. (original) The product of Claim 16, further comprising instructions for detecting new production devices and generating an interface for each new production device detected.

19. (original) The product of Claim 16, further comprising instructions for identifying each new production device detected and acquiring production logic used to generate an interface for that production device.

20. (original) The product of Claim 19, wherein the instructions for acquiring the production logic comprise instructions for acquiring the production logic from a device information service.

21. (original) The product of Claim 16, wherein the instructions for receiving and managing comprise instructions for receiving and managing to be executed by a device other than the production device.

22. (previously presented) A system for representing production devices on a network, comprising:

- a database containing production logic for one or more production devices, the production logic for each production device including data for generating a user interface having particular controls for selecting production options;

- an interface generator operable to access production logic for a production device in the database and, following receipt of a production request for a target document, to serve an interface for the production device, the interface, being generated according to the accessed production logic, having user accessible controls for selecting production options for the target document; and

- a production engine, in electronic communication with the interface generator, the production engine operable to manage production of the target document for the production device using production options selected through the interface.

23. (original) The system of Claim 22, wherein the production engine includes:

- a plan generator operable to merge the document with the production options selected through the interface; and

- a device driver operable deliver the production plan to the production device.

24. (original) The system of Claim 22, further comprising a service engine operable to detect new production devices and to acquire production logic for each the detected production device.

25. (original) The system of Claim 24, wherein the service engine includes:

- a device locator operable to detect and identify new devices present on the network; and

- an update service operable to acquire the production logic for each of the detected devices and update the database with the acquired production logic.

26. (original) The system of Claim 22, wherein the interface generator is a web server and the interface is a web page.

27. (original) The system of Claim 22, wherein the interface generator and the production engine each operate on a device other than the production device.

28. (previously presented) A system for representing production devices on a network, comprising:

- a database containing production logic for one or more production devices, the production logic for each production device including data for generating a user interface having particular controls for selecting production options;;

- a device locator operable to detect and identify new devices present on the network;

- an update service operable to acquire the production logic for each of the detected devices and update the database with the acquired production logic;

- an interface generator operable to access the production logic for a production device in the database and serve an interface for the production device, the interface being generated to include user accessible controls for selecting production options for a document as specified by the production logic for that production device;

- a plan generator operable to merge the document with production options selected through the interface; and

- a device driver operable to deliver the production plan to the production device.

29. (previously presented) In a computer network, a system for managing electronic document production over a computer network, the system comprising:

- one or more production devices;

- a client operable to identify a target document, select one of the one or more production devices, and direct a production request to the selected production device;

- a proxy service in electronic communication with the client and the production device, the proxy service operable to return, in response to receiving a production request, to the client an interface for selecting production options for the selected production device and to manage the production of the target document for the selected production device using production options selected through the interface.

30. (original) The system of Claim 29 wherein the proxy service includes a web server, the interface is a web page, and the client is a web browser.

31. (previously presented) The system of Claim 29, wherein the proxy service includes:

a database containing production logic for at least one of the one or more production devices, the production logic for a given production device including data for generating a user interface having particular controls for selecting production options for that production device;

an interface generator operable to access the production logic in the database and serve the interface for the selected production device, the interface being generated according to the production logic for the selected production device; and

a production engine operable to manage production of the document on the production device in accordance with the selected production options.

32. (original) The system of Claim 29, further comprising:

a device locator operable to detect and identify new production devices present on the network; and

an update service operable to acquire the production logic for each of the detected devices and update the database with the acquired production logic.

33. (original) The system of Claim 29 wherein the client operates on a first network device and the proxy service operates on a second network device different from the first network device.

34. (original) The system of Claim 29, wherein the proxy service operates on a device other than the selected production device.

35. (previously presented) In a computer network, a system for managing electronic document production over a computer network, the system comprising:

one or more production devices;

a database containing production logic for one or more production devices, the production logic for a given production device including data for generating a user interface having particular controls for selecting production options for that production device;

a device locator operable to detect and identify new devices present on the network;

an update service operable to acquire the production logic for each of the detected devices and update the database with the acquired production logic;

a client operable to identify a target document, select one of the one or more production devices, and direct a production request to the selected production device;

an interface generator operable to access the production logic for the selected production device in the database and serve an interface for the selected production device, the interface being generated to include user accessible controls for selecting production options for the target document as specified by the production logic for that production device;

a plan generator operable to acquire the target document and merge it with production options selected through the interface forming a production plan; and

a device driver operable deliver the production plan to the production device.

36. (previously presented) The method of Claim 1, wherein each interface has user accessible controls for identifying a target document and for selecting production options for the target document, and wherein managing comprises managing, for the selected production device, the production of the target document identified through the interface using production options selected through the interface.

37. (previously presented) The product of Claim 16, wherein:

the instructions for returning comprise instructions for returning to the client an interface for the production device, the interface having user accessible controls for identifying the target document and for selecting production options for the target document;

the instructions for managing comprise instructions for managing the production of the target document identified through the interface using production options selected through the interface.